



North Carolina Department of Environment and Natural Resources

Dexter Matthews, Director

Division of Waste Management

Beverly Eaves Perdue, Governor
Dee Freeman, Secretary

December 18, 2009

Mr. Will Sager
Henderson County Solid Waste Division Manager
802 Stoney Mountain Road
Hendersonville, NC 28791

Re: *Groundwater Assessment Work Plan*
Henderson County C&D and MSW Landfills, Permit #45-01

Dear Mr. Sager:

The North Carolina Solid Waste Section has completed a review of the *Groundwater Assessment Work Plan* dated September 17, 2009 for the Henderson County C&D and MSW Landfills submitted by Golder Associates NC, Inc. In addition, a meeting was conducted on September 17, 2009 to discuss the *Groundwater Assessment Work Plan*. The *Groundwater Assessment Work Plan* includes activities for both the C&D Landfill and the MSW Landfill.

C&D Landfill activities will include: re-developing the groundwater monitoring wells MW-10, MW-12, and MW-13; monitoring the headspace in groundwater monitoring wells MW-9, MW-11, MW-12, and MW-13 for methane and hydrogen sulfide; collecting landfill gas samples from the headspace of groundwater monitoring wells MW-9, MW-11, MW-12, and MW-13 and have them analyzed for Appendix I volatile organic compounds (pending the results of the methane headspace monitoring); analyzing the groundwater samples from MW-9, MW-10, MW-11, MW-12, and MW-13 for leachate indicator parameters; and submitting an alternate source demonstration (ASD) for volatile organic compounds being detected in the downgradient groundwater monitoring wells (pending the results).

MSW Landfill activities will include: requesting to remove groundwater monitoring well MW-9 from the compliance monitoring network for the MSW Landfill due to its location, however, MW-9 will remain for assessment and water level purposes; requesting to remove groundwater monitoring wells AMW-1S, AMW-1D, AMW-2S, and AMW-2D from the compliance monitoring network; re-developing groundwater monitoring wells MW-6 and MW-8; collecting a dissolved mercury sample from groundwater monitoring well MW-8 and analyze if total mercury is detected; sampling groundwater monitoring wells MW-5, MW-6, MW-7, MW-8, Old MW-1, MW-1, Old MW-2, and MW-2 using low-flow sampling techniques and analyze the samples for Appendix I constituents, mercury, and monitored natural attenuation (MNA) parameters; installing a groundwater monitoring well if mercury is detected in the downgradient compliance wells during the September 2009 event; repairing groundwater monitoring well MW-1, if necessary and feasible; submitting an ASD for the mercury detection in groundwater monitoring well MW-8, pending the results; and finally submitting a Nature and Extent Study (NES) for volatile organic compounds being detected in downgradient

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groundwater monitoring wells (pending the results).

As a result, the *Groundwater Site Assessment Work Plan* is approved as described with one exception. The request to remove groundwater monitoring wells AMW-1S, AMW-1D, AMW-2S, and AMW-2D from the compliance monitoring network is not approved at this time.

Also, a September 18, 2009 email was sent to Golder Associates NC, Inc. in response to their September 17, 2009 email regarding groundwater monitoring well MW-9. The response email stated, "The MSW Landfill compliance groundwater monitoring well, MW-9, is located downgradient from the C&D Landfill, and does not effectively monitor the MSW Landfill due to its location. Therefore a request was made during our meeting (and also located within the September 2009 Groundwater Assessment Work Plan) to remove MW-9 from the compliance network for the MSW Landfill. As a result, the request is approved. You may discontinue sampling MW-9 for the MSW Landfill at this time, however, please do not abandon the groundwater monitoring well and continue to collect water levels during each semiannual sampling event."

If you have any questions or concerns regarding this letter, please contact me at 919-508-8500 or jaclynne.drummond@ncdenr.gov. Thank you for your anticipated cooperation with this matter.

Sincerely,



Jaclynne Drummond
Hydrogeologist
Environmental Compliance
Solid Waste Section

cc: Marcus Jones, Henderson County Director of Engineering
Dusty Reedy, Golder Associates NC, Inc.
Rachel Kirkman, Golder Associates NC, Inc.
Mark Poindexter, Field Operations Supervisor
Deb Aja, Western District Supervisor
Andrea Keller, Environmental Senior Specialist
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